

1    WHAT IS CLAIMED IS:

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3    1. A method for inter-node communication, comprising the steps of:

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5                 dividing a plurality of unencoded signals into groups at a first node,  
6        wherein each group has a number of unencoded signals;

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8                 transforming each group of unencoded signals into a group of encoded  
9        signals, wherein each group of encoded signals has nearly an equal number of  
10      logic 1's and logic 0's; and

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12                 transmitting the groups of encoded signals to a second node, whereby  
13        the groups of encoded signals are transmitted with minimal current  
14        fluctuations.

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17    2. The method of claim 1 wherein each group of unencoded signals  
18       includes an equal number of signals.

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21    3. The method of claim 1 wherein the transforming step includes the step  
22       of transforming the groups of unencoded signals into groups of encoded  
23       signals having an equal number of logic 1's and logic 0's.

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26    4. The method of claim 1 wherein the step of transforming each group of  
27       unencoded signals into a group of encoded signals comprises the step of  
28       transforming a group of six unencoded signals into a group of eight encoded  
29       signals.

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32    5. The method of claim 1 wherein the step of transforming each group of  
33       unencoded signals into a group of encoded signals comprises the step of  
34       transforming a group of four unencoded signals into a group of six encoded  
35       signals.

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3     6.     The method of claim 1 further comprising the step of selecting an  
4     encoding scheme prior to performing the step of dividing a plurality of  
5     unencoded signals into groups.

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8     7.     The method of claim 6 wherein the encoding scheme transforms a  
9     group of unencoded signals to encoded signals such that a difference between  
10    a total number of unencoded data values and a total number of encoded data  
11    values is a predetermined fraction of the total number of unencoded data  
12    values.

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15    8.     The method of claim 1 further comprising the step of transforming the  
16    groups of encoded signals received by the second node back into the plurality  
17    of unencoded signals.

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20    9.     A method for inter-node communication, comprising the steps of:

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22               dividing a plurality of unencoded signals into groups at a first node,  
23               wherein each group has a number of unencoded signals;

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25               transforming each group of unencoded signals into a group of encoded  
26               signals, wherein each group of encoded signals has nearly a constant number  
27               of logic 1's and logic 0's; and

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29               transmitting the groups of encoded signals to a second node, whereby  
30               the groups of encoded signals are transmitted with minimal current  
31               fluctuations.

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34    10.    The method of claim 9 wherein each group of unencoded signals  
35    includes an equal number of signals.

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2 11. The method of claim 9 wherein the transforming step includes the step  
3 of transforming the groups of unencoded signals into groups of encoded  
4 signals having a constant number of logic 1's and logic 0's.

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7 12. The method of claim 9 further comprising the step of selecting an  
8 encoding scheme prior to performing the step of dividing a plurality of  
9 unencoded signals into groups.

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12 13. The method of claim 12 wherein the encoding scheme transforms a  
13 group of unencoded signals to encoded signals such that a difference between  
14 a total number of unencoded data values and a total number of encoded data  
15 values is a predetermined fraction of the total number of unencoded data  
16 values.

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19 14. The method of claim 9 further comprising the step of transforming the  
20 groups of encoded signals received by the second node back into the plurality  
21 of unencoded signals.

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